

REMARKS

This is in response to the Office Action mailed April 23, 2005. Please reconsider the application in view of the above amendments and the following remarks.

Status of Claims

Applicant confirms its provisional election of species 6. Claims 1, 4, 6, 8, 12, 15, 16, and 18 have been canceled, claims 2, 3, 5, 7, 9, 11, 13, and 17 have been amended, claims 10 and 14 have been withdrawn, and new claims 19-30 have been added.

Applicant has amended claims 3 and 17 to correct typographical errors, and claims 9, 11, and 13 have been amended to account for other claim cancellations and amendments. Specifically, claims 9, 11, and 13 previously depended from now canceled claims and have been amended to depend from independent claim 2. Claims 3, 9, 11, and 13, and 17 have also been amended to reflect the element names used in claim 2. Finally, claims 2 and 5 have been amended to preclude a future double patenting objection (as discussed infra), and claim 7 has been amended to further illustrate the adjustability of the variable drag tapered bearing.

Election/Restrictions

The Office Action withdrew claims 10 and 14 from consideration as being directed to a non-elected invention. The application reflects the withdrawal of claims 10 and 14. Furthermore, claims 10 and 14 have been amended to depend from and reflect the element names used in claims 2 and 5.

Drawings

The Office Action objected to the drawings under 37 CFR 1.83(a) as not showing the “knurled spindle” of claims 12 and 16. Claims 12 and 16 have been canceled. Accordingly, applicant respectfully requests that the rejection under 37 CFR 1.83(a) be withdrawn.

Double Patenting

The Office Action raised a potential double patenting objection, stating that if claims 2-4 were found allowable, claims 5, 6, and 17 would be objected to under 37 CFR 1.75. Claims 4 and 6 have

been canceled, and claims 2 and 5 have been amended so that they are not so close in content that they both cover the same thing. Specifically, claim 2 provides a tapered bore carried by a first support element and claim 5 provides a tapered bore formed in a first support element. Claims 3 and 17 depend from independent claims 2 and 5 respectively, and are therefore allowable.

Rejections under 35 U.S.C. § 102

The Office Action rejected claims 1, 2, 4-9, 12, 13 and 16 as being anticipated under 35 U.S.C. § 102(b) by Wichers et al. (USP 3,409,315). Claims 1, 4, 6, 8, 12 and 16 have been canceled, and claims 2, 5, 7, 9 and 13 have been amended.

If an invention was patented in the United States more than one year prior to the date of an application for patent, then the applicant's invention is anticipated and not entitled to a patent: 35 U.S.C. § 102(b). For anticipation under 35 U.S.C. § 102(b), the prior art patent must teach or disclose every aspect of the claimed invention. MPEP § 706.02, IV. In this application, claims 2, 5, 7, 9 and 13 have been amended so that each claim comprises a variable drag tapered bearing. The rejection of claims 2, 5, 7, 9, and 13 is based, in part, on the assertion that the Wichers et al. bearing in the cited '315 patent is an adjustable drag tapered bearing, however the Wichers et al. bearing is neither an adjustable nor a variable drag tapered bearing and the rejection of claims 2, 5, 7, 9 and 13 should therefore be withdrawn.

Wichers et al. is not an adjustable or a variable drag tapered bearing because it does not provide variable drag pivotal movement. The Wichers et al. bearing consists of "shells ... drawn together against the bias of the interposed spring by fastening means such as a screw." ('315 patent, col. 2, line 10-13). The use of the spring in conjunction with the screw to bias the shells indicates that the screw is securely fastened and non-variable, and that the spring creates a constant biasing force. This is further supported in that "an alternative embodiment might comprise a permanent rivet, or equivalent fastening means" to draw the shells together instead of a screw. ('315 patent, col. 5, line 53-53) (emphasis added).

Furthermore, Wichers et al. at column 6, lines 66-69 states that "the relative lengths of the rod-like portion 104 of the fastening element 72, and the internally threaded recess 68, define the extent

to which the fastening element 72 may be tightened....” This indicates that the length of the threaded recess 68 and rod-like portion 104 are predetermined and set for a specific engagement level between the tapered mating surfaces of the swivel joint. Specifically, the length of the threaded recess 68 and rod-like portion 104 are chosen so that the shoulder surface 106 of the fastening element 72 abuts the lower end 108 of the receptacle. (‘315 patent, col. 6, lines 70-72). As best illustrated by Figures 2 and 4 of Wichers et al., should the fastening element 72 be threaded out of internally threaded recess 68, one of two undesirable events would occur. First, the shells may separate at the location of the fastening element 72 but still be retained by ears 74 and 100, which are contained by the first rod. This would create an undesirable cantilever effect between the shells and the tapered mating surfaces. Alternatively, the head of the fastening element 72 may protrude from the joint, thus defeating the purpose of the recess for the head of the fastening element 72. Thus, Wichers et al. does not teach or disclose a variable drag tapered bearing. Conversely, Wichers et al. discloses a swivel joint having a constant drag that is determined by the predetermined length of its internal components.

Finally, Wichers et al. states that the swivel joint solves the problem of carrying large loads on relatively long arms while being readily adjustable and yet firm enough to not be displaced by the load. (‘315 patent, col. 1, lines 32-35). The term “readily adjustable” refers to the position of the arm attached to the joint. This description indicates that the load carrying arm be readily positionable and, when positioned, be capable of inherently maintaining that position. This is incompatible with a variable drag tapered bearing whose bearing drag may range from freely moveable to rigidly clamped. The swivel joint of Wichers et al. is inoperable as a variable drag tapered bearing because, if the drag were such that the joint was rigidly clamped the arms would not be readily positionable, and if the drag were set at a minimum level, the arm would not remain inherently in the position it was placed. This is further evidenced by the disclosed use of a permanent rivet which would also create a fixed drag. This further reinforces the fact that Wichers et al. does not teach or disclose a variable drag tapered bearing. Because the specification is silent as to variability of the bearing drag, this feature is not shown, taught or disclosed. Therefore, the

Wichers et al. bearing is not variable and does not provide variable compression between a tapered bore and a tapered axle. In short, the Wichers et al. show, bearing is not an adjustable or variable drag tapered bearing, nor does Wichers et al. show, teach or disclose an adjustable or variable drag tapered bearing.

Because Wichers et al. does not show, teach or disclose an adjustable or variable drag tapered bearing, the '315 patent does not show, teach or disclose every aspect of claims 2, 3, 5, 7, 9 and 13. Therefore, claims 2, 3, 5, 7, 9 and 13 are patentable and the rejection under 35 U.S.C. § 102(b) should be withdrawn. Applicant respectfully requests that the examiner withdraw the rejection under 35 U.S.C. § 102(b) and allow claims 2, 3, 5, 7, 9 and 13.

Rejections under 35 U.S.C. §103

The Office Action rejected claims 3, 17 and 18 under 35 U.S.C. § 103(a) as being obvious over Wichers et al. '315 in view of Horn (USP 3,601,598). Furthermore, the Office Action also rejected claims 11 and 15 under 35 U.S.C. § 103(a) as being obvious over Wichers et al. '315 in view of Sheftel (USP 2,986,395). Claims 15 and 18 have been canceled and therefore the examiner should withdraw the rejection to claims 15 and 18.

To establish a prima facie case of obviousness under 35 U.S.C. § 103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP 2143. Furthermore, in order to rely on a reference as a basis for rejection of an applicant's invention, the reference must be analogous prior art. See MPEP § 2141.01(a). Here, the combinations do not disclose, teach or suggest all elements of claims 3, 11, and 17, and a cited reference is not analogous prior art.

First, with respect to Claims 3 and 17, Wichers et al. and Horn do not teach or suggest all of the elements recited in claims 3 or 17. As discussed above, Wichers et al. does not disclose, teach, or suggest the use of a variable drag tapered bearing. Furthermore, Horn discloses joints connected by

permanent rivets and therefore the joints are not adjustable. ('598 patent, col. 1 line 56). As a result, Horn does not disclose, teach, or suggest the use of a variable drag tapered bearing. Both claims 3 and 17 depend from an independent claim having a variable drag tapered bearing, and further include a second variable drag tapered bearing. Therefore, the combination of Wichers et al. and Horn fails to disclose, teach, or suggest all of the elements recited in claims 3 and 17, and rejection of claims 3 and 17 under 35 U.S.C. § 103(a) is improper.

Second, the combination of Wichers et al. and Sheftel does not disclose, teach or suggest all of the elements in claim 11. As noted, Wichers et al. does not disclose, teach, or suggest the use of a variable drag tapered bearing. Also, Sheftel discloses a basketball goal with a height adjustment feature but does not disclose, teach, or suggest the use of a variable drag tapered bearing. Claim 11 depends from independent claim 2 and therefore includes a variable drag tapered bearing. Because the combination of Wichers et al. and Sheftel does not disclose, teach, or suggest the use of a variable drag tapered bearing, a rejection of claim 11 under 35 U.S.C. § 103 is improper.

Furthermore, Sheftel is not analogous prior art and can not be relied upon as a basis for rejection. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." See MPEP § 2141.01(a) citing In re Oetiker, 977 F.2d 1443, 1446 (Fed. Cir. 1992). Sheftel discloses a basketball hoop having a gear assembly to raise or lower the height of the hoop. Sheftel further discloses attaching a cylindrical member to a stationary base. Conversely, applicant's invention comprises a mounting system having a variable drag tapered bearing. An adjustable height basketball hoop is not in the field of a mounting system having a variable drag tapered bearing, nor is it reasonably pertinent to the particular problem with which the inventor was concerned.

"A reference is reasonably pertinent if ... it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." See MPEP 2141.01(a) citing In re Clay, 966 F.2d 656, 659 (Fed. Cir. 1992). The problem with which

Applicant's concern was to create a mounting system comprising a variable drag tapered bearing. As such, an invention relating to a gear assembly for adjusting the height of a basketball hoop would not have logically commended itself to Applicant's attention. Therefore, the adjustable height basketball goal of Sheftel is not analogous prior art because it is neither within the field of analogous art nor reasonably pertinent to the particular problem with which Applicant was concerned. Because Sheftel is not analogous prior art, it should not be relied upon, and all of the elements of claim 11 are not disclosed, taught, or suggested in Wichers et al. Specifically, Wichers et al. does not disclose a threaded spindle screwed into a threaded bore. In short, because Sheftel is not analogous art, it should not be relied upon and all of the elements of claim 11 are not disclosed, taught or suggested, thereby precluding a rejection of the claim under 35 U.S.C. § 103. Applicant respectfully requests that the examiner withdraw the rejection under 35 U.S.C. § 103 and allow claim 11.

New Claims

Applicant has also amended the application by adding new claims 19-30.

CONCLUSION

Applicant has attempted in earnest to address each issue raised in the Office Action of April 27, 2005. In view of the foregoing, Applicant requests notice of allowability for all pending claims 2, 3, 5, 7, 9, 11, 13, 17, and 19-30.

The Commissioner is authorized to charge any additional fees associated with this paper or credit any overpayment to Deposit Account No. 11-0982.

Respectfully submitted,
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